

Stream Team Annual Report

2005

2002

A Summary of Stream Team Activities



Young scientists from Stream Team 76 at Ladue Middle School evaluate the water quality of their adopted stream, Deer Creek, in St. Louis County. Science teacher Elizabeth Petersen established this very active Team in 1989.

Missouri Stream Team . . . promoting
citizen awareness and involvement in
river and stream conservation.



♦ Education ♦ Stewardship ♦ Advocacy ♦

Stream Team began because a few individuals had a vision: clean, healthy streams we can all enjoy. It has been successful because of the many people who have signed on to share both the vision and the work needed to make it a reality. Stream Teams never stop looking for new opportunities and even greater challenges.

2005 revealed the tenacious tendency of many of our volunteers. Although Missourians faced record-setting drought and had to pay higher-than-ever gas prices to travel to their adopted stream, Stream Team accomplishments were still noteworthy. Some of the highlights include over 750 tons of trash removed from Missouri streams, nearly 300 educational events, over 4,000 trees planted, and over 30 habitat improvement projects were put in place. This year, more than 134,000 volunteer hours were dedicated by Stream Team volunteers!

2005 also welcomed the following accomplishments:

- ♦ The Stream Team Academy added two new workshops: *Introduction to Mussels* and *Introduction to Hellbenders*.
- ♦ A Regional Stream Team gathering took place in the Ozark Region.
- ♦ Large-scale cleanups are growing by leaps and bounds. This year included 4 Missouri River Relief events, Operation Clean Stream, Blue River Rescue, James River Rescue, Jacks Fork Cleanup, McKenzie Creek Cleanup, Little Piney Cleanup, and Bryant Creek Cleanup.
- ♦ Project Blue River Rescue won an Environmental Excellence award for special efforts during their 15th anniversary year.
- ♦ Monofilament recycling efforts began in Missouri.
- ♦ Water Quality Monitors were trained in EPT family-level identification and sediment monitoring.
- ♦ \$2.4 million worth of volunteer labor!

We have more details to share in the upcoming pages so don't stop reading now! Share with us as we celebrate our many accomplishments on behalf of Missouri streams.

Stream Team Success

Missouri Citizens Invest Loads of Time to Protect Water Quality

Water Quality Monitoring continues to be the second most popular Stream Team activity, following closely behind Litter Pickups. We have trained nearly 5,000 citizens in water monitoring. A total of 29 workshops were held throughout the year. In addition, 310 volunteers monitored 336 sites throughout the state. The breakdown of workshops and attendees follows:

Water Quality Monitoring Workshop Type	Number of Workshops	Number of Volunteers Trained
Introductory	15	300
Level 1	8	97
Level 2	5	49
Level 3	1	2
Total	29	448

In 2005 the Volunteer Water Quality Monitoring Program began three supplemental activities available to monitors that have completed Level 2 training. These three activities are EPT Taxa, Sediment, and Chloride Monitoring.

EPT monitoring identifies Ephemeroptera (Mayflies), Plecoptera (Stoneflies) and Tricoptera (Caddisflies) to family level. While this method of identification can give a better indication of water quality, it is not for everyone. Identification of EPT taxa to family is very tedious and requires access to a dissecting microscope and skills necessary to identify different invertebrate appendages such as mouth parts and length of antennae.

Sediment monitoring begins with a two hour workshop geared to train volunteers to track sediment runoff from disturbed areas and address the problem of urban stormwater runoff. Sediment is the number one water quality pollutant nationwide and urban areas are at high risk because of expansion and development in many communities. More of these workshops will take place in the future throughout the state.



Look at that fabulous Kansas City skyline! Joan Leavens from Team 1878 (the Blue River Watershed Association) sent us this snapshot of Wendell Phillips High School students sampling water quality on the Missouri River at Kaw Point.

Seventeen volunteers have been trained and are actively monitoring chloride levels. Chloride occurs naturally in Missouri streams but excessive amounts can harm aquatic species. Urban and suburban streams are affected the most by road salting, waste water discharges, and manufacturing. If the data proves to be valuable, chloride testing may become a regular part of the chemical monitoring effort.

World Water Monitoring Day included several focus areas with special events this year. Eight sites were monitored on Dardenne Creek and nine sites were monitored on the Meramec River as well as several sites on tributary streams. Jefferson, St. Charles, and St. Louis Counties had the largest number of sites monitored during the event with a total of thirty-two sites monitored!

Other monitoring accomplishments which stand out for the year include:

► *In Franklin County, Brush Creek*

monitors set out to prove that the new Brush Creek Sewer District will improve Brush Creek water quality once homes and businesses are connected to the system. The project also encouraged a community effort in Pacific to further protect the aesthetic value of Brush Creek with a litter pickup.

► *The Perry County Shallow Ground-water Monitoring Project involved many agencies and a request for the support of local Stream Teams. The goal of the project is to protect the Grotto Sculpin in a sensitive karst area of the state. The Teams monitored nearly every month and their data has been turned over to researchers for evaluation.*

As evidenced here, Volunteer Water Quality Monitoring continues to grow and expand. The areas we delve into continue to be determined by volunteer interest as well as state and local water quality issues.

Stream Team Growth

Stream Team Academy ... Our "University Without Walls" Grows and Grows

During 2004, the Academy hosted three workshops. *Understanding Streams, Introduction to Mussels, and Introduction to Hellbenders.*

Understanding Streams is a workshop that teaches students about the interconnected relationship of streams with their floodplains and upper watersheds. During the course we examine the concept of streams being products of the interactions of water, energy, sediment, and vegetation. We also take time to look at these interactions and discuss how changes and alterations affect the primary stream components.

Introduction to Mussels was taught by the area's leading malacologists. Attendees learned identification tips, life history, and ecology. A follow-up field trip helped participants gain an appreciation for sampling techniques and field identification.

Shown below are some of the volunteers who received awards from the Stream Team Program for this past year. Congratulations and "thank you" to all. And check out those vintage Stream Team T-shirts worn by Marshfield Elementary students of Team 478! Teacher Lori Herring and her classes have actively participated in the Stream Team Program since 1994.



Introduction to Hellbenders was led by MDC's herpetologist and gave students a chance to learn about, observe, and survey for hellbenders on the Current River. A new appreciation and respect was gained for this unique stream species.

Adopt-An-Access

The number of activities reported at adopted accesses more than doubled in 2005. Adopters reported 452 activities at the accesses including 789 participants who worked 1782 hours. Almost 34 tons of litter was collected. Twenty-one new Adopt-An-Access agreements were signed in 2005. Forty-eight accesses have current adoptions, but about 250 Department of Conservation accesses, and numerous other accesses managed by federal, state, and local entities, are still available for adoption. Adopters may agree to periodically pick up litter, maintain plantings, mow grass, or provide other services.

Monofilament Recycling—A New Way for Teams To Get Involved

The Stream Team program partnered with Berkeley in the fall of 2005 to recycle and remove used fishing line from the environment. Pure Fishing (Berkeley) recycles used monofilament fishing line and turns it into usable fish structures, tackle boxes, and other fishing related items.

Over 40 PVC recycling bins have been built by volunteers and placed at community lake and river accesses in addition to public fishing areas. Stream Team volunteers have embraced the program and are excited to make another positive impact. A recent grant also enabled the program to produce an additional 150 PVC recycling bins for anyone wanting to get involved in the effort.

Bag That Trash!

stash Your Trash, sponsored by the Stream Team Program, provides trash bags to canoe outfitters as well as to Stream Team volunteers. This year 261,500 bags were provided to 115 outfitters, and 16,718 bags were for Stream Team projects. Many of the outfitters help out by recycling bags and using them over and over again. In addition to these mesh bags, 3,851 50-gallon plastic bags were provided for large-scale cleanups. Imagine if the trash carried by all these bags had ended up or remained in our streams! Look for a new 24x36-inch green mesh bag for litter pick-ups in 2006! This new bag will hold more trash than the smaller red mesh bag, but should not be as cumbersome as the 50-gallon plastic bags when full.

Remember, many float outfitters have agreed to offer a discount to Stream Team volunteers. Check our 2006 Stream Team Float Outfitters Directory the next time you go floating. Just remember to bring your Stream Team ID card!

Stream Team Potential

Stream Team Assistants Exceeded Expectations

AmeriCorps Stream Team Assistants helped Teams in the St. Louis Region during a one-year pilot project that ended in November. Three veteran Stream Teamers, Gerry Boehm, Larry Ruff, and Darlene Haun assisted hundreds of Teams with their local projects. Three Stream Teams, Great Rivers Greenway, Greenway Network, and Open Space Council of St. Louis, helped fund the administrative costs of the project. The Missouri River Communities Network administered the AmeriCorps grant, and helped train and support the Assistants.

The goal of serving more local Stream Team members was exceeded, and we're very proud of their accomplishments. A generous donation by Pat Jones (Williamsburg) allowed us to contract with Darlene Haun to continue to provide Stream Team assistance, and Jerry and Larry are acting as consultants on a Stream Team grant project they helped to write.

This Year's Top Teams

The Stream Team Program has so many outstanding volunteers that each year it gets harder and harder to choose the recipients of our annual awards. Award winners are chosen based on the activity reports they submit throughout the year. This year's winners were:

Adult Category

Awareness: Team 211 "Arnold Stream Team"

Honorable Mention: Team 713 "Upper Jacks Fork River Rats"

Leadership: Team 5 "Open Space Council of St. Louis"

Honorable Mention: Team 702 "The Mutrux Family"

Stewardship: Team 1878 "Blue River Watershed Association"

Honorable Mention: Team 701 "Christian County Health Department"

Youth Category

Awareness: Team 779 "Chillicothe Middle School"

Honorable Mention: Team 2136 "7th and 8th Grade Valle School Science"

Leadership: Team 697 "Gallatin R-V School"

Honorable Mention: Team 1588 "Tiger Cubs Stream Team"

Stewardship: Team 2540 "Waynesville High School"

Honorable Mention: Team 478 "Marshfield Elementary Gifted Program"

Some of our Team members won awards from other groups as well. Ron Coleman, member of several St. Louis area Teams, won the Conservation Federation of Missouri's Conservationist of the Year Award. Missouri River Relief, Stream Team 1875, won several awards this year including: the Environmental Protection Agency's Region 7 Administrator's Award for Environmental Excellence, James River Basin Partnership's Clean Water Award, and they were recognized as Lakeside Nature Center's Volunteer of the Month. Finally, Project Blue River Rescue received Bridging the Gap's Environmental Excellence Award in the Keeping Kansas City Beautiful Category.

Our congratulations go out to all these winners and others who received recognition within their local communities or watersheds!

Regional Get-Togethers

The Scenic Rivers Stream Team Association enthusiastically hosted the first Ozark Stream Team Conference in Dora, Missouri. The September 9-11 gathering included 67 participants, some traveling from as far away as St. Louis, Columbia, Kansas City, and Joplin.

Participating Teams had plenty of time to network and talk about their activities to the group. Speakers also presented on a variety of interesting and timely topics: *Contaminants in Fish*, *What's New in Volunteer Monitoring*, *Stream Teams in the Classroom*, *Developing a Stream Team Website*, *Building a Plywood Canoe*, *Planning a Large Cleanup*, *Sand and*

Gravel Mining, *Lead Mining*, *Karst Geology*, *Sustainable Forestry*, *ATVs in Streams*, and *Protecting Land with Conservation Easements*. About 30 attendees cooled off on Sunday with a float on the North Fork River. Association members are already making plans for another conference in 2007.

Congratulations to the Scenic Rivers Stream Team Association, the speakers, and participants for a great gathering!

What Could Top 2005? 2006!

Plans for 2006 are BIG! The entire month of April is being set aside to celebrate the anticipated arrival of Stream Team 3000! Yes, that's right, we are nearly 3000 Teams strong! Our slogan for the celebration is "**BIGGER, BETTER, STRONGER**" and we hope to be just that in 2006.

The Stream Team Academy will host our first workshop on *Streams and Groundwater*. We'll also hold repeats of the mussel and hellbender workshops. Continued development in more advanced water quality training will also take place.

A regional meeting for the Northeast is scheduled, and more may take shape before the year's end.

Several large-scale cleanups that are becoming traditional will aim for bigger and better accomplishments in 2006.

Many communities have changed the way they look at their watershed and local streams because of the Stream Team volunteers in their area. We're looking forward to another exciting year and hope that our volunteers will continue to astonish us with what they can accomplish!

The Stream Team website at www.mostreamteam.org offers a world of information about the Stream Team Program, activities, workshops, and much more. Visit the Stream Team Shopping Mall or buy Stream Team Coffee to help us raise funds for the Program.

Log on for a visit today!

Stream Team Activity Totals 2005

These totals are based on activity reports submitted by Stream Teams.

Activity	Participants	Time Spent (volunteer hours)	Number of Units	Value (Hours x \$18.04*)
Adopt-An-Access	789	1,782	35 events	\$32,147.28
Advocacy	6	12	12 hours	\$216.48
Agency Events	1	3	1 event	\$54.12
Articles Written (newspaper, newsletter, etc.)	33	44	21 articles	\$793.76
Association Activities	318	1,437	1,437 hours	\$25,923.48
Award Winner	27	30	11 awards	\$541.20
Display at Fairs, etc.	240	550	21 events	\$9,922.00
Educational Projects	17,841	28,729	291 events	\$518,271.16
Forestkeepers -- Forest Monitoring	23	24	5 trips	\$432.96
Greenway Development Projects	55	440	1 project	\$7,937.60
Grant Projects	4	200	2 projects	\$3,608.00
Habitat Improvement	189	817	32 projects	\$14,738.68
Inventory	110	115	12 inventories	\$2,074.60
Letters Written in Support of ST Issue	49	82	87 letters	\$1,479.28
Litter Pickup	13,904	73,459	788 tons of trash	\$1,325,200.36
Media Contacts	98	94	16 interviews	\$1,695.76
Mentoring	128	816	816 hours	\$14,720.64
Meetings (held or attended)	1,604	2,822	1,567 attendees	\$50,908.88
Other Miscellaneous Projects**	1,205	1,546	139 projects	\$27,899.84
Event Planning	213	872	101 events	\$15,730.88
Planted Trees	532	1,122	4,190 trees	\$20,240.88
Photo Point Monitoring	8	25	43 trips	\$451.00
Presentations to Other Groups	522	1,239	51 presentations	\$22,351.56
Recruited New Members	169	375	156 people	\$6,765.00
River Observation (related to possible pollution events)	5	15	15 hours	\$270.60
Stream Access Maintenance	25	36	25 events	\$649.44
Storm Drain Stenciling	521	1,268	2,793 drains	\$22,874.72
Streambank Stabilization Projects	7	10	3 events	\$180.40
Watershed Mapping	7	7	1 trip	\$126.28
Workshop (attended or conducted)	650	5,243	677 attendees	\$94,583.72
Water Quality Monitoring	5,938	11,745	1,233 trips	\$211,879.80
Zebra Mussel Monitoring	4	5	2 trips	\$90.20
Totals	45,225	134,964.0		\$2,434,750.00

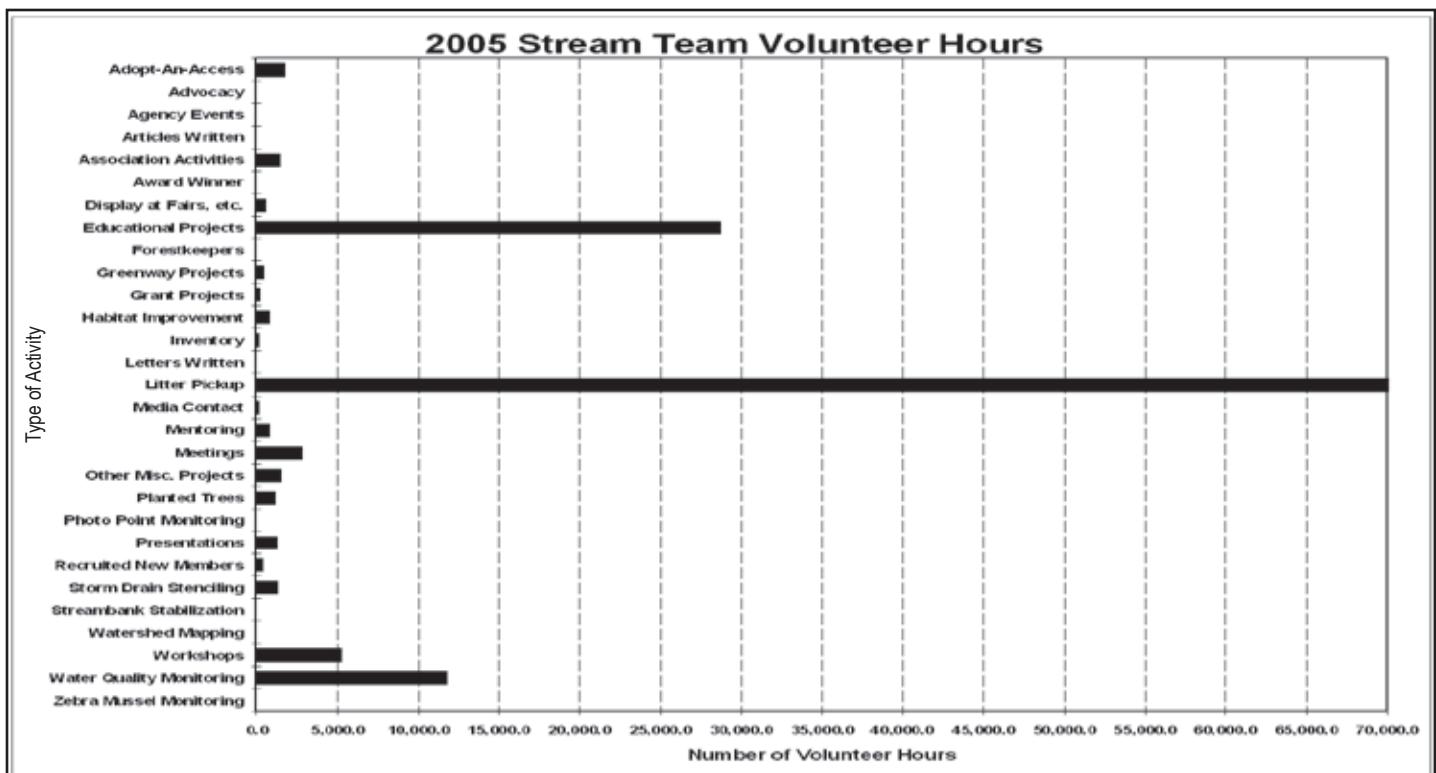
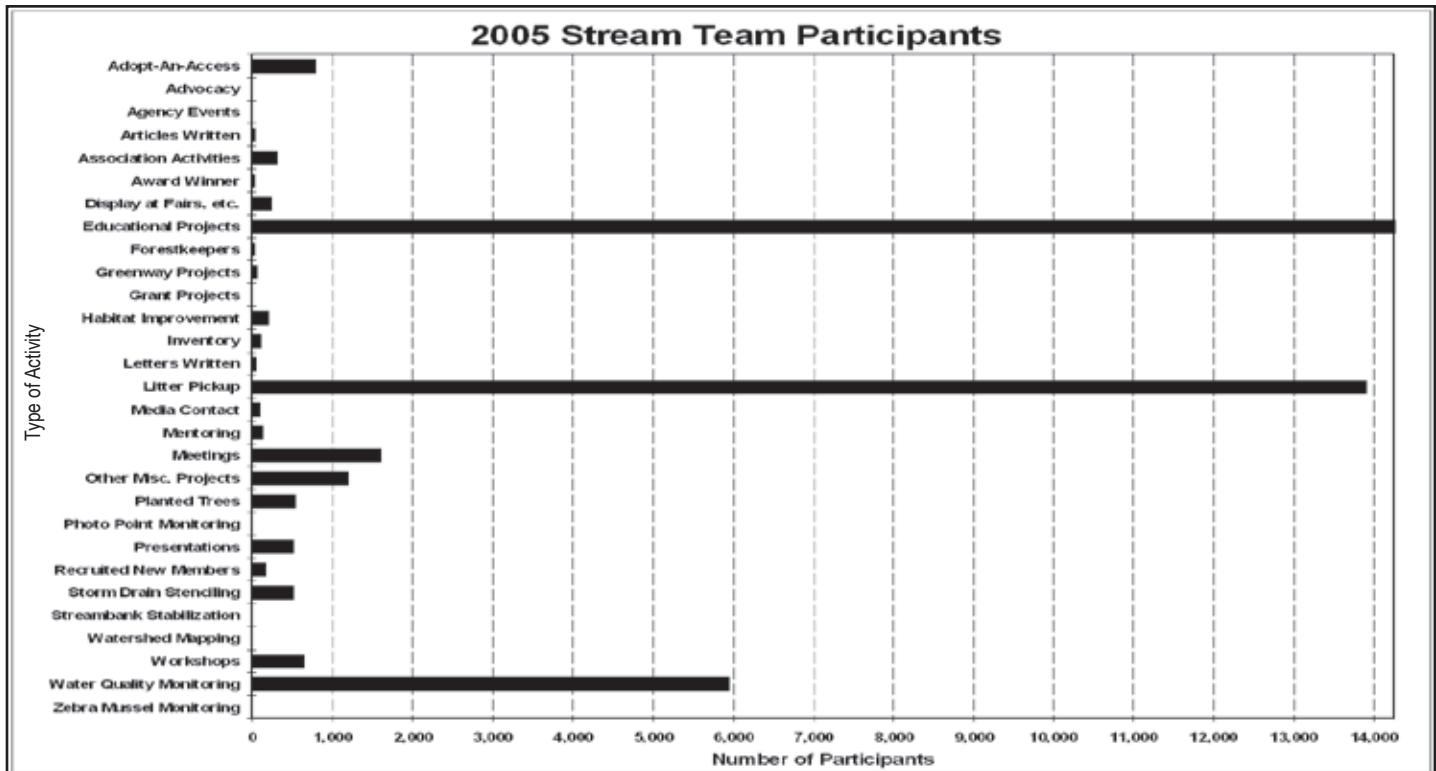
* \$18.04/hour is the current national non-agricultural wage rate for the estimated value of volunteer time.

This figure is provided annually courtesy of the U.S. Department of Labor.

** Includes projects like web site development, newsletters, scout programs, fund-raising projects, etc.

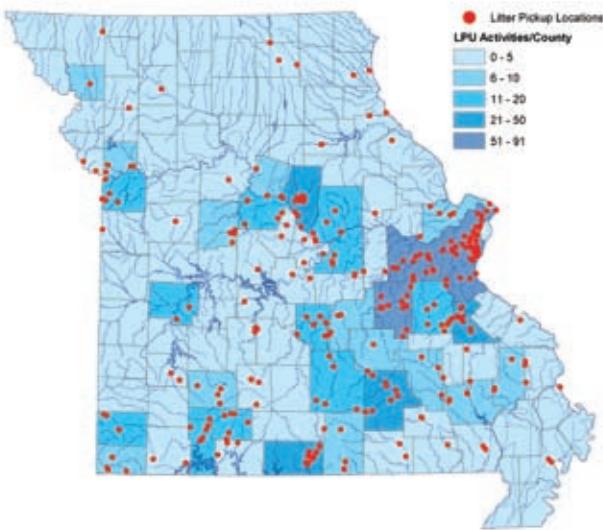
Over
\$2.4 million!

Stream Team Activity Charts 2005

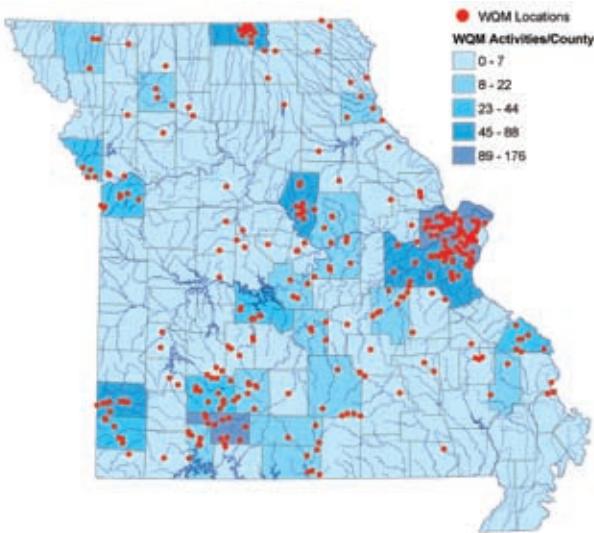


Stream Team Activity Sites 2005

LITTER PICKUP SITES

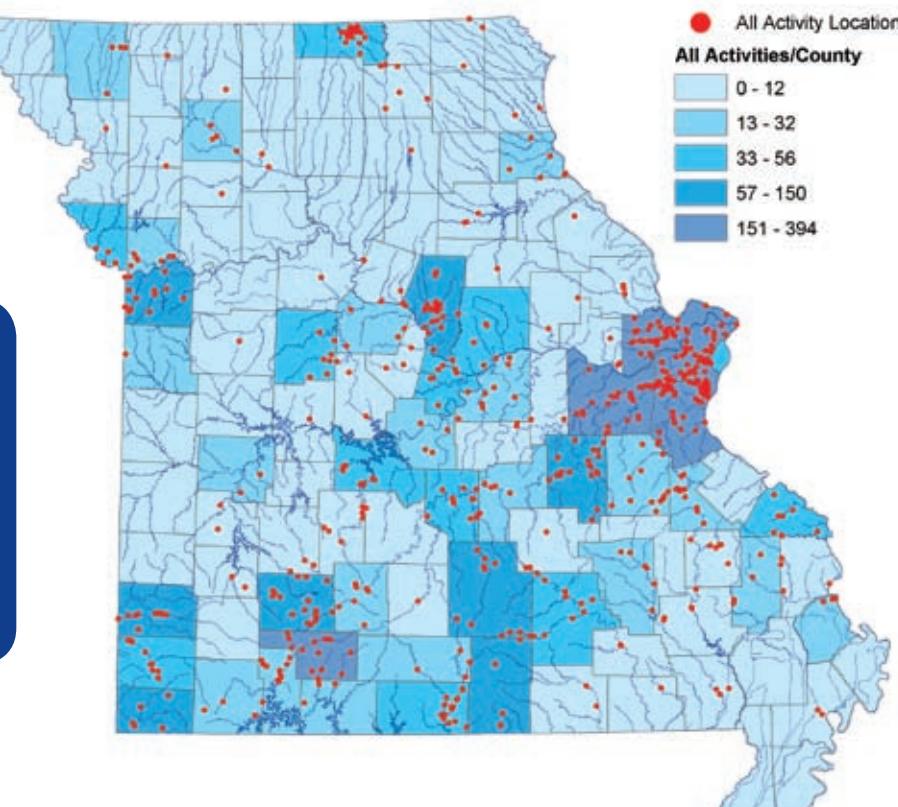


WATER QUALITY MONITORING SITES



ALL ACTIVITY SITES AND ALL ACTIVITIES PER COUNTY

These maps indicate sites where reported activities occurred in 2005. Some activity sites are not mapped because we do not have detailed site information; many other activities are not site-specific.



Stream Team Reflections 2005



Stream Team 211 from Arnold helped other Teams promote a media event announcing the upcoming Operation Clean Stream. In all, more than 2,500 volunteers collected 36 tons of trash during the 38th Annual Operation Clean Stream.



Dot Anderson (above) and Karen Meyer of Stream Team 2108 regularly measure stream flow on Deer Creek and Creve Coeur Creek in St. Louis County.



Palmer Lake in Belgrade has a trailer-load of trash LESS than it did before, thanks to the McClain Family Team 2675.



Volunteers from Friends of Lakeside Nature Center (Team 175) conducted a pre-litter pickup inventory prior to their annual Blue River Rescue event. They identified multiple dump sites along the river similar to the one above at Byram's Ford, a historic Civil War battlefield.



Jessi Calicotte of Team 2663, The H2O Coalition, took a series of photos along Fox Creek in St. Louis County for her Photo Point Monitoring project. Along with healthy stretches of stream, she also discovered areas of streambank erosion (above) as well as a junked car needing removal.

♦ Commitment ♦ Respect ♦ Cooperation ♦



Some of our most active Stream Teamers are very young! This year, the Blue River Watershed Association (Team 1878) organized over 2,000 youngsters at their KC Clean Stream Event in Kansas City.



Gallatin High School science students floated, camped, monitored water quality, and picked up litter on the Grand River in Daviess County. Teacher Dennis Steigerwalt has led Stream Team 697 since 1995!



One of our oldest Teams, the Ozark Wilderness Waterways Club (Team 41), collected trash and tires from the Niangua as they floated . . . and splashed!



Some of our most active Stream Teamers are very young at heart! This year, hundreds of Piedmont citizens (Stream Team 2226) volunteered to clean McKenzie Creek at their 7th Annual Litter Pickup & Picnic.



Reuters International held their Community Service Day on May 20, 2005, and cleaned the Meramec near Route 66 State Park. Above is one of four piles of trash collected. Good job, Team 2743!

♦ Strength ♦ Accomplishment ♦ Heart ♦



Have you ever seen a “tire rodeo?” Our Stream Team tire-wrestling cowboys corralled tons of stubborn tires from the Meramec River near I-44 bridge during Operation Clean Stream 2005. It’s unanimous . . . Stream Team volunteers are all-around champions 16 years running!



Stream Team AmeriCorps volunteers shared their enthusiasm and knowledge with visitors at the Columbia Bottoms Conservation Area education event last spring.



Stream Team Academy held *Introduction to Mussels*, *Hellbenders*, and *Understanding Streams* workshops in 2005. Some were so popular we had to turn folks away, and we really hate doing that! Above, attendees discussed stream management alternatives during the practicum portion of the *Understanding Streams* workshop.



“Dump no waste, drains to stream,” was the message 41 seventh-graders (plus 18 parents) from Fort Zumwalt West stenciled on 195 storm drains in O’Fallon. Students also distributed educational flyers and conducted 450 surveys to assist O’Fallon’s Stormwater Management Plan.



Last spring, Licking High School students (Team 473) displayed their water quality monitoring techniques at Montauk State Park during *Kids Free Fishing Day*.

♦ Character ♦ Effort ♦ Enthusiasm ♦



Every October, World Water Monitoring Day becomes a favorite activity for Stream Teams. Above, Bernie Arnold of Team 211 prepares his sampling equipment prior to checking multiple sites along the Meramec River. Volunteers from Teams 1008 and 888 also helped monitor.



Dolores Swoboda of Devil's Back Floats sent us this great snapshot of dump trucks filled with tires collected during their 20th Annual River Cleanup on the Bourbeuse River. Wow, Stream Team 3 is absolutely amazing!



Jay Scruggs' Cub Scout Pack of Team 2130 conducted their 3rd Annual Litter Pickup on Hager Lake at Farmington. Thanks, and keep up the good work!



On World Water Monitoring Day last fall, students from Holliday School (Team 2635) in Monroe County monitored water quality near Union Covered Bridge on Elk Fork Salt River. Students sampled macroinvertebrates and water chemistry, measured flow, and conducted a visual survey.



Wendy Martin sent us several photos showing Team 1062 (City of Wentzville) cleaning McCoy Creek at the low water bridge.

Stream Team Staff

2005

2002



Back row from left: Bob Schulz (MDC), Wayne Maresch (DNR), Paul Calvert (MDC), Tim Rielly (MDC), Mark Van Patten (MDC)

Middle row: Mary Utrecht (MDC), Chris Riggert (MDC), Priscilla Stotts (DNR), Valerie Hentges (MDC), Donna Menown (DNR), Mary Clark (DNR), Ann Crawford (DNR)

Front row: Sherry Fischer (MDC)

*Thank you, Stream Teams,
for another year of hard work and dedication.
Don't forget, we are here to help!*



Stream Team is sponsored by
Missouri Department of Conservation
Missouri Department of Natural Resources
Conservation Federation of Missouri



Questions?

Please contact us at:

Missouri Stream Team

PO Box 180

Jefferson City, MO 65102

1-800-781-1989 (voice mail)

www.mostreamteam.org

streamteam@mdc.mo.gov